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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/547,444

02/09/2007

Peter Miethe

23374

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02/16/2011

KF ROSS PC

5683 RIVERDALE AVENUE

SUITE 203 BOX 900

BRONX, NY 10471-0900

EXAMINER

DO, PENSEE T

ART UNIT

PAPER NUMBER

1641

NOTIFICATION DATE

DELIVERY MODE

02/16/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

EMAIL@KFRPC.COM

ereyes@kfrpc.com

Office Action Summary	Application No. 10/547,444	Applicant(s) MIETHE ET AL.	
	Examiner Pensee T. Do	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-16 and 18-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-16, 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>January 23, 2011</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

This application 10547444, PG Pub. No. 20070155024 filed 02/09/2007 is a national stage entry of PCT/DE04/00149, International Filing Date: 01/30/2004 and claims foreign priority to 10309132.7 , filed 02/28/2003.

Information Disclosure Statement

The IDS submitted on January 23, 2011 has been acknowledged and considered.

Amendment Entry & Claims Status

The amendment filed on November 03, 2010 has been acknowledged and entered.

Claims 12-16, 18-27 are pending and being examined.

Withdrawn Rejection(s)

Rejections under 112, 2nd paragraph and 103 in the previous office action are withdrawn herein.

New Grounds of Rejection

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-16, 18-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12, it is unclear of the spatial relationship between the other components, i.e. oscillator, magnetic field sensor, etc. and the vessel.

Claim 12 is also unclear of the spatial relationship between the magnetic field sensor and the oscillator.

Claim 13 is unclear of the spatial relationship between the frequency divider and the rest of the device components, i.e. oscillator, magnetic field sensor and etc.

Claims 14, 19 and 20 recite "the oscillator frequency" which lacks antecedent support.

Claim 22 is unclear of the spatial relationship between the frequency multiplier and the other components of the device, i.e. oscillator, magnetic field sensor and etc.

Claims 25-27, all depending from claim 12, recite "the partial coils" which lacks antecedent basis.

Claim 27 also recites "the container" which lacks antecedent basis.

Response to Arguments

Applicant's arguments, filed November 3, 2010, with respect to the rejection(s) of claim(s) 12-16, 18-27 under 103 and 112, 2nd have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Remarks

The claims as now recited are free of prior arts.

The prior arts fail to teach at least one oscillator for producing an alternating modulating magnetic field of predetermined frequency and an alternating scanning magnetic field with a frequency different from that of the modulating magnetic field; and

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at least one field generator connected to the oscillator for subjecting the analyte to the modulating magnetic field and the scanning magnetic field at the same time; and a first phase-sensitive detector connected to the magnetic field sensor and responsive to the frequency of the amplitude of the response magnetic field at the frequency of the scanning magnetic field and a second phase-sensitive detector connected to the first phase-sensitive detector.

The following references are pertinent arts of record:

Minchile (US 6,824,655 filed 12/30/2002) teaches applying two alternating magnetic fields, each with a different frequency, to two detecting coils comprising two different sample containers and detecting the AC difference between the coils, i.e. comparing two different particle systems or two different fluids. (see fig. 7, col. 11, lines 20-45; col. 12, lines 10-26).

Minchile fails to teach applying two alternating magnetic fields, each with a different frequency, to one sample container or the phase-sensitive detectors.

Nikitin et al. (EP 1262766A2) teaches a method of detecting magnetic particles by applying an ac magnetic field wherein the signal is being recorded at such a frequency that is a linear combination of the frequencies. (Entire document)

However, Nikitin fails to teach a device comprising an oscillator for producing an alternating modulating magnetic field of predetermined frequency and an alternating scanning magnetic field with a frequency different from that of the modulating magnetic

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field; and at least one field generator connected to the oscillator for subjecting the analyte to the modulating magnetic field and the scanning magnetic field at the same time; and a first phase-sensitive detector connected to the magnetic field sensor and responsive to the frequency of the amplitude of the response magnetic field at the frequency of the scanning magnetic field and a second phase-sensitive detector connected to the first phase-sensitive detector.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pensee T. Do whose telephone number is 571-272-0819. The examiner can normally be reached on Monday-Friday, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on 571-272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pensee T. Do/
Examiner, Art Unit 1641
/Jacob Cheu/
Primary Examiner, Art Unit 1641